# Technical data sheet

## AK-WiCon-SXL

# AK-WiCon-SXL

**USB-Device-Server for the integration of USB-HID devices into a network**

Without system drivers you can now use Wiegand input devices such as RFID readers, Card Reader etc. into a network. The only requirement, your Wiegand terminal supports Wiegand 26 or 34 bit protocol. All input data e.g. RFID data can be queried or sent directly via TCP/IP Additionally the data connection can be through the integrated SSL/TLS data encryption against unwanted access by third parties can be saved. The individually adaptable web interface allows you to the integration of your personal website.
Ihnen darüber hinaus die Integration Ihrer persönlichen Website.


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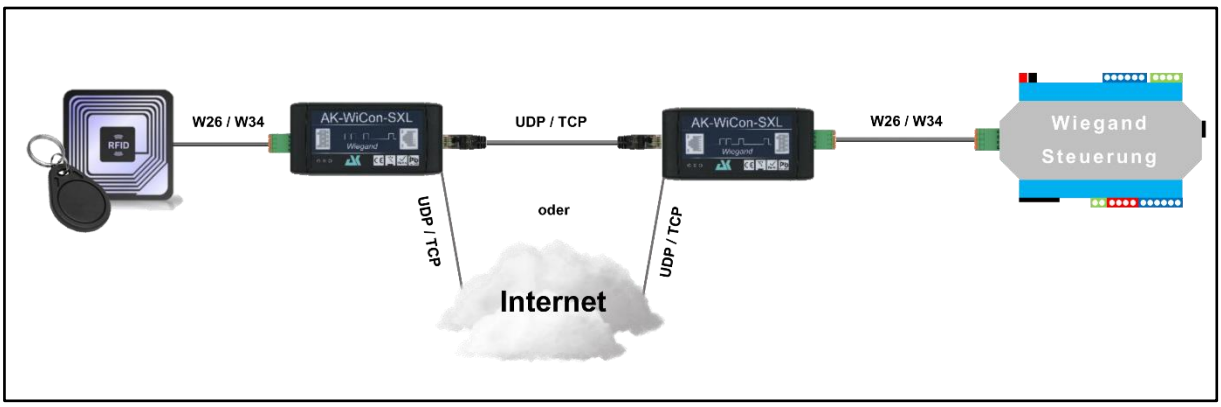
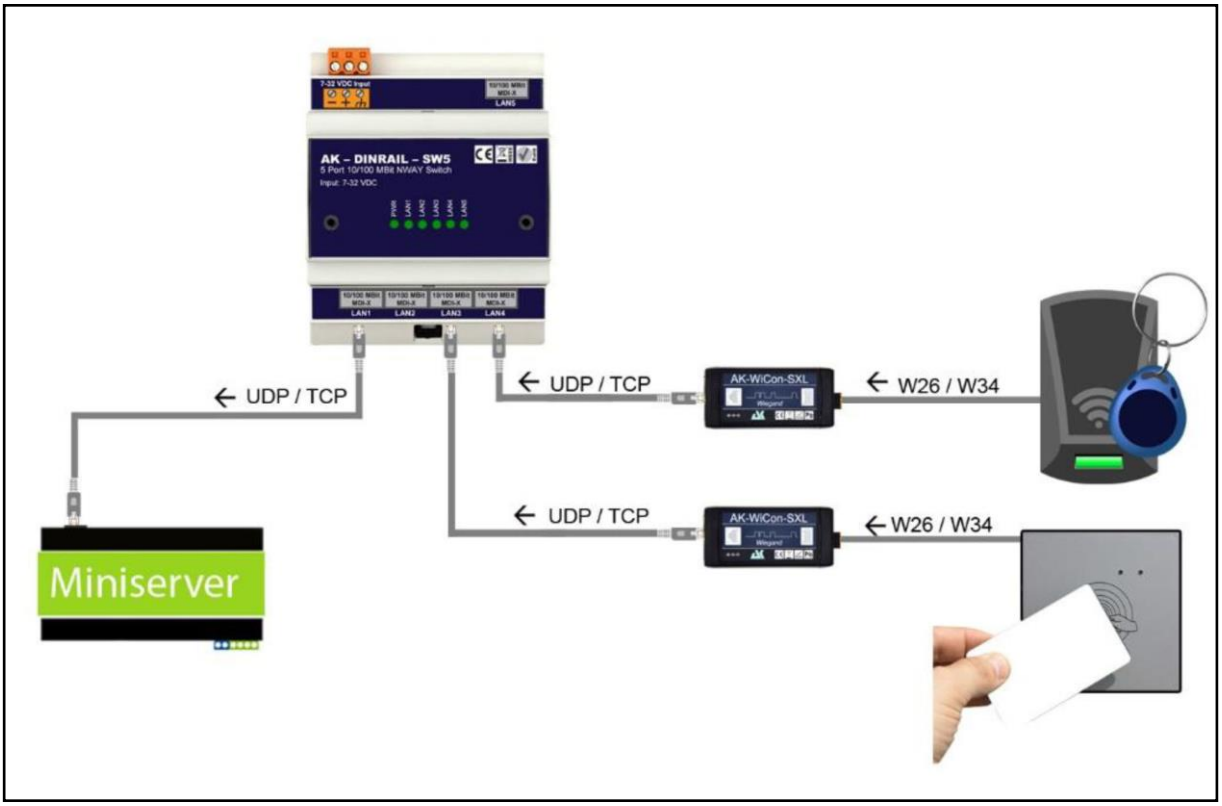
# Connection options:





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# Connection options:


## Technical data

- **Dimensions:**
  40 x 21 x 82 mm (BxHxL)
- **Housing:**
  Schlagfester Kunststoff
- **Weight:**
  37 Gramm
- **Temperature range:**
  -40°C .. + 70°C
- **Standards**
  CE / WEEE / RoHS-II
  EN 55022 Class B
  EN 55024 Class A
- **Power supply:**
  -Netzteil 12 Volt, 1A
  -PoverOverEthernet IEEE802.3af
- **Power consumption:**
  12 Volt / ca. 1000 mA
- **Connectors:**
  1 x Ethernet RJ45
  1 x PCB connector 4 pole
- **Ethernet (M-DIX)**
  10 Half Duplex
  10 Full Duplex
  100 Half Duplex
  AutoSensing
- **Wiegand**
  26 Bit Format
  34 Bit Format
- **Data pins D0/D1**
  5V level

## Supported protocols

1. IPv4
2. TCP
3. UDP
4. FTP
5. FTPS
6. TFTP
7. ICMP
8. ARP
9. SNMP
10. LPR
11. DHCP
12. BOOTP
13. DNS
14. TELNET
15. HTML
16. HTTP
17. HTTPS
18. DYNDNS
19. SMTP
20. POP3
21. SYSLOG
22. AK-M2M
23. IPv6
24. NDP
25. ICMPv6
26. DHCPv6
27. TCPv6
28. UDPv6
29. Netbios-NS
30. LLMNR
31. ZeroConfig
32. -APIPA
33. -AutoIP
34. IP-Multicast
35. IEEE802.1x
36. SSL 3.0
37. TLS 1.0
38. TLS1.1
39. TLS1.2

## Management

1. Telnet
2. Browser

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## Views


Front with power supply connector


Front with PowerOverEthernet

Rear side with USB connector

## Emulations and functions

- Connect-On-Data
- Auto-Connect
- DYNDNS-Client
- FTP-Server
- LPR-Server
- 512KB internes Flashdrive
- Flash-File-System
- E-Mail – Client
- TCP/UDP -Client
- TCP/UDP –Server
- SYSLOG-Client
- AKM2M

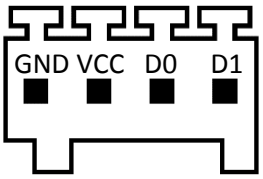
## Order numbers

| | |
|---|---|
| **AK-WiCon-SXL-NT** | with switched power supply 12Volt, 1A |
| **AK-WiCon-SXL-POE** | with PoverOverEthernet IEEE802.3af |

## Safety

- SSLv3
- TLS1.0
- TLS1.1
- TLS1.2
- IEEE 802.1x

## Pinout



# Example with Wiegand 26Bit

Format 0(MSB first, FIFO):

| | E-PB | Facility | | | | | | | | Card-ID | | | | | | | | | | | | | | | | O-PB |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Raw data | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | | 1 |
| Valence | | 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 | 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 | 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 | |

TCP 3 Bytes in HEX **8F** **BF** **5A**

Format 1(LSB first, FIFO):

| | E-PB | Facility | | | | | | | | Card-ID | | | | | | | | | | | | | | | | O-PB |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Raw data | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 |
| Valence | | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | |

TCP 3 Bytes in HEX **F1** **FD** **5A**

Format 2(LSB first, LIFO):

| | E-PB | Facility | | | | | | | | Card-ID | | | | | | | | | | | | | | | | O-PB |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Raw data | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 |
| Valence | | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | |

TCP 3 Bytes in HEX **5A** **FD** **F1**

Format 3(MSB first, LIFO):

| | E-PB | Facility | | | | | | | | Card-ID | | | | | | | | | | | | | | | | O-PB |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Raw data | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 |
| Valence | | 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 | 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 | 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 | |

TCP 3 Bytes in HEX **5A** **BF** **8F**

Format 4 Merge decimal value of Facility and decimal value of Card ID as text. Convert result to 24-bit number

| | E-PB | Facility | | | | | | | | Card-ID | | | | | | | | | | | | | | | | | | | | O-PB |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Raw data | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | | 1 |
| Valence | | 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 | 32768 | 16384 | 8192 | 4096 | 2048 | 1024 | 512 | 256 | 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 | | | | | |

Decimal values as text: 143 + 48986 = 14348986(24-Bit-number)
TCP 3 Bytes in HEX **DA** **F2** **BA**

Note: if HW NOT CONNECTED appears in the telnet menu but sensor is connected PULLUP resistors 100K should be connected to D0 and D1 lines are installed by the sensor.
If no data is coming: Increase timeout and check type 26 - 34 bit.

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